

## TRABAJO FIN DE GRADO

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# The relation between happiness and income in Spain



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## THE RELATION BETWEEN HAPPINESS AND INCOME IN SPAIN

### Abstract

The aim of this work is to investigate the relation between income and happiness focusing on Spain in order to test if there is evidence for the so called Easterlin paradox. To reach this goal we carry out a very simple analysis in order to measure the effect of income on the probability to be happy. In fact, we run a probit regression to measure the impact of income on the probability of both to be happy and extremely happy. The conclusion is that the level of income has an effect on happiness but up to a certain level. So, also in Spain, we find some evidence for the Easterlin Paradox. The main implication of this result is that we may re-think the goodness of the GDP per capita as a well-being measure.

### Introduction

This work provides a global vision about the importance of different indicators associated with happiness. There is a significant number of literature focused on the relation between income and happiness. Nevertheless, in the past years, all the attempts in studying subjective experiences were rejected because of its non-scientific nature, that is to say, because there is a difficulty on measure it. For the realization of this work, it has been take into account data from the European Social Survey (ESS), considering, besides the question about happiness, the indicators that I personally think have higher relation with happiness. Even if life satisfaction and happiness are not exactly the same concepts, in this work we will use these words as synonyms. The key of this work is taking as proxy for the subjects' utility the data about happiness collected in the ESS. Nevertheless, these days it is thought that the pursuit of happiness is strictly related with money. In fact, to the question: "Would you feel better off if there is an increase in your income?" The most common answer would be: "Yes, for sure!". The reason is because money allows you to do whatever you want, such as travelling, not worrying about paying taxes or covering basic needs for survive. Basically, gives you the necessary freedom to do whatever you want, anytime. Furthermore, it seems that the whole society, including TV programs or commercials

are boosting a consumerist society. Following the same logic, governments are following the same guideline to improve citizens wellbeing: increasing the gross domestic product (GDP). But, is it true? Are the factors that makes you happy, related with income? Are citizens of a country happier if the country becomes richer? Most of the people are quite sure that more income leads to higher happiness. There were no doubts about that until Richard Easterlin wrote his contribution about the relation between happiness and income. Since his discover, that is, the relation between GDP and happiness is not lineal, many economists try to explore with new data if this relation is meaningful for different countries or in different time (Rojas, 2007). So, it will be important to verify if the relation between income and happiness explained in the Easterlin Paradox holds in Spain as well. To reach this goal, data from the EES have been converted in a dummy variable and a Probit regression have been implemented to check what variables has affect the probability to be happy. In particular the same analysis has been carried out to evaluate both the probability to be happy or extremely happy. It has been observed that, besides the important role played by income, there are different variables correlated with subjective well-being, among them the social relation and health. In the same way, after analysing the highest level of happiness, the main conclusion is that income does not play an important role, unlike health or being single.

## The importance of studying happiness

Being happy is probably an important aspiration for many people. Nevertheless, sometimes is difficult due to different life circumstances. In general terms, everyone is interested in feeling happy and in helping others to be happy. Also, governments, who should try to citizens well-being. For these reasons, should be important analyse happiness from both microeconomic and macroeconomic point of view. As an overview, there are different aspects in life that are thought to make life easier and facilitate reaching happiness. On the one hand it is said that as higher income, higher happiness, but Is it true? Is it has been demonstrated? With higher income people is less worried about different aspects in life. However, there are others such as health or even having children that could be more important to reach happiness. So, the level of happiness can be taken as utility of the subjective well-being.

On the other hand, from a macroeconomic perspective, unemployment or the GDP have an effect on the citizens happiness, so the governments should take into account

the effects of these and other indicators. The main purpose of a government should be, as said before, improve citizens' well-being, and achieving stability in terms of employment or social rights is the first step toward this goal. The Economics of Happiness focuses on the analysis of the main factors that can influence the individual well-being in order to verify if there are other important aspects that must be considered besides money. This research field is mainly based on results collected by surveys asking, in addition to demographic information, questions like "Which is your level of satisfaction with your current life in general?" or "How happy are you?". Governments of many countries are carrying out different economic programs with the same goal: the increase of the GDP. The reason is because from a macroeconomic perspective, the goal of the government is to improve people's welfare. So, it is known that with the increase of the GDP, employment and economic activity will be increased as well. The citizens will be in a better position if there is an increase in the employment possibilities or if there is an increase in the economic activity. Nonetheless, it is not clear if it is accurate to base the political actions only on the economic aspects. Sometimes, higher rates of the GDP are paired with some negative externalities. That is the reason why policy measures focused only in the economic and employment aspects should be revised. If policy makers were interested in helping people to be happier, they probably would be interested in learning the main factors influencing the level of happiness. Indeed, they are realising that consumption and income are not the solely factors determining happiness and, for this reason, a growing effort is devoted to discover which are the main determinants of the individual well-being. Thus, it is important to explore how the data about happiness can be used in developing new policies. It should be known that, compared with past years, now it is easier measuring or analysing different data about income, life expectancy or education.

Measuring happiness is a complex task because it is a subjective measure. In the last years, a growing number of academics and international institutions are putting a big effort in building up data bases, allowing to evaluate happiness as if it was a measurable variable. For instance, the World Happiness Report is an important source of information, which contains surveys undertaken in more than 160 countries in many languages ([www.WorldHappinessReport.com](http://www.WorldHappinessReport.com)). Also, through Eurobarometer, which contains many surveys that have been conducted during more than 40 years, experts can collect data from public opinion ([www.Eurobarometer.com](http://www.Eurobarometer.com)). In this work, we employ the data obtained from the European Social Survey, where can be found different micro data about happiness or demographic and personal information ([www.europeansocialsurvey.com](http://www.europeansocialsurvey.com)). Now, more and more frequently, politicians take into account that governments are more successful if they try to measure and increase

happiness in the way that does not imply increasing consumption. In contrast with the ones which focus on the increase of the GDP as the principal measure of wealth. Furthermore, measuring happiness data face more difficulties such as the effect in the long run, because it does not have the same effect than in the short run. As Andrew Clark (2008) states in his relative income article: " *In general, events to which individuals adapt quickly only have a happiness payoff in the short run, while events where adaptation is slow (or absent), have long-run happiness payoffs.*" According to that article, until one year is considered short-run, meanwhile from the year is considered long-run. So, to examine happiness properly experts should take into account that the result will be different depending on the time you are analysing. It happens because economic growth has increased income levels and at the same time consumption possibilities. As a result of that, the increase in income does not seem suitable relative to needs. For those reasons, as short run is considered what is taken on a short timescale, the consideration of what means happiness will not be the same than looking to the future. It is important to understand why there is a difference between the short and long run. Mainly, the difference is due to socialization. Each generation has higher level of living, so logically, the awareness of needs would unconsciously increase (Easterlin,1973). Because of that, over time the rise in income will be balanced by the upward shift in perceived needs. According to Deborah Freedman, even though the financial situation has improved during the past years, with an increase in the real capita of around 40 percent, not many people feels that his personal economic situation has improved.

## Relation between income and happiness starting from the Easterlin contribution

Easterlin, in his work published in the 70's (Easterlin,1974), after analysing the time series of the GDP per capita and the level of happiness, showed that these variables were not correlated. In detail, by using data of the United States of America he observed that there was a decline in the level of happiness in spite of an increase in the level of the GDP and, more in general, that the relation between these variables is not linear. Since GDP is often used to measure the well-being of a country, the observed weak correlation between happiness and income was called the "Easterlin Paradox".

Simply stated, the happiness-income paradox argues that there is a point in time that within countries happiness does not change directly with the income. Therefore, the main results show that, if we look at the individual dimension, a higher level of income is usually associated to a higher level of reported happiness. Easterlin explains that it happens because over time there is an increase in the social norm apart from the increase in income. Since this publication there has been a general increase in the interest of studying why it happens. Furthermore, there have been later researches questioning whether Easterlin's conclusion was accurate. Although it is reasonable to argue that exists a relation between income and happiness, one of the most important results is that the relation is not linear (Diener y Biswas-Diener, 2002).

From the Easterling paradox, there has been important discoveries about the relation between income and subjective wellbeing (A. Geronimo, 2014). The first one is that there are high correlations between GDP and subjective wellbeing in the poorer countries. The reason behind this result is that, in such countries, the level of income is under a certain threshold and a small increase leads to a noticeable change in the standard of living and, as a consequence, in the level of well-being.

Secondly, also in the past years the economic growth has been more and more criticized due to the fact of controversial effects such as pollution, congestion, greenhouse effect or even the lack of sensitivity about the importance of the environment around us. This would have an effect on the level of happiness. For instance, if there is a rise in the pollution, it could have an effect on the health of the people, causing different type of sickness or even deaths. The third discovery states that people who pursue material goals tend to be, in general, less happy independently of their level of income. Hence, happiness may be enhanced by more money when it means avoiding poverty and living in a developed nation. Nevertheless, happiness seems to rise no so much over the long run when more of it is gained by well-off individuals whose materials desires rise with their incomes. In this manner, there are many main theories which are compatible with the existent discoveries: The idea about the relation between income and happiness depend on the amount of material desires that people's income allows them to fulfil. Additionally, when basic needs are covered, income improvement reports higher level of subjective wellbeing. So, material desires could have an effect on happiness independently of the income. For this reason, one of the Easterlin conclusion was: *"Most people have the same worries such as income, health or family. Nevertheless, lower income groups differ most from the higher income in that the prevalence of worries about money is more common"* (Easterlin, 1974).

Furthermore, the non-lineal relation between GDP and happiness could be related with other theory called "Hedonic treadmill". It states that comparisons between richer and



poorer countries or between higher and lower incomes of a given country at a different time does not show the expected results of the simple comparisons ones. As it is said before, it happens because there is a growth of general level of needs as a result of the higher income in society. To be understood, on the average, if there is a general increase in income, no one is in a better position respect the other ones. It does not happen the same if there is a salary improvement for some people and not for the others. They may feel that have better economic position than before.

## Focus on Spain: happiness and main economic indicators

Even though we focus the analysis only on Spain, we briefly analyse both the economic and happiness condition of this country with the aggregate of Northern and Southern European countries, in order to see the differences in terms of happiness, trying to observe which can be the causes. Spain has established itself as the 12<sup>th</sup> economy around the world with a GDP of 1.291,4 million dollars (Mazo, E, Expansion, 2018) and with a GDP per capita of around 38.110 dollars in 2017. Furthermore, as an additional fact, according to Human Development Index, which measures the standard of living and progress of a country, in Spain there is a good quality of life (Humandevlopmentindex.org). Furthermore, in order to have a general idea about both the economic and happiness condition of people living in Spain with respect to other people in Europe, we make a comparison by considering two aggregate groups: Northern European countries, which includes Finland, Norway, Sweden and Denmark, and Southern European countries including Spain, Italy, Greece and Portugal. Taking the data from "The Organisation for Economic Co-operation and development" (OECD), and from the World Database of happiness which is an inventory of findings about happiness. The comparison is done taking in consideration the level of unemployment, happiness and GDP per capita from 2007 to 2017, in order to see the evolution in the last ten years. The level of unemployment and the level of GDP per capita are two of the main indicators considered to have an effect on happiness and there is enough official data to make the comparison. As indicated, it has been preferred to use the GDP per capita because there is an important population difference between the Northern and Southern European countries, making simpler data comparison. It may be highlighted that GDP per capita data is measured by OECD in thousands of yearly US dollars at current prices and PPPs. Figure 1 shows the average GDP per capita for each group in US dollars.

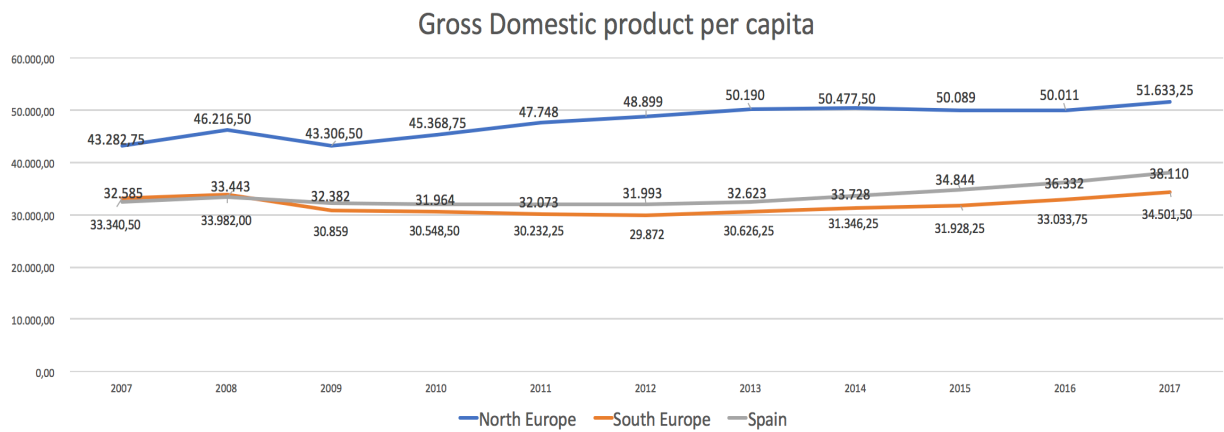


Figure 1: Gross domestic product per capita in Europe in the last decade. Data obtained from OECD.

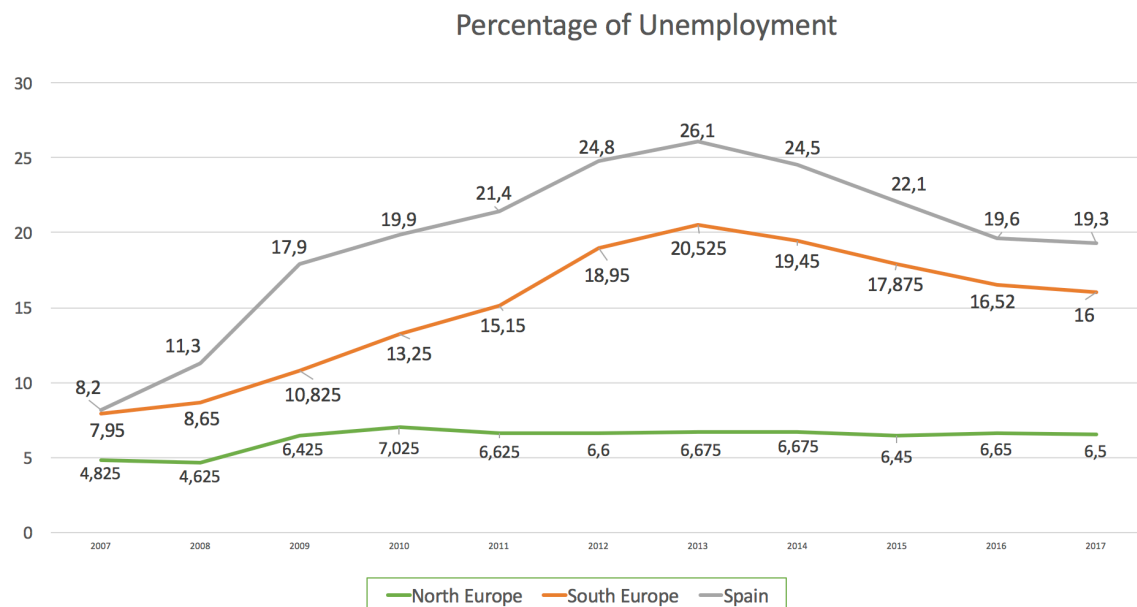


Figure 2: Percentage of unemployment in different parts of Europe. Data obtained from Eurostat.

Figure 2 shows the tendency of the unemployment, doing the group average for each year, in the Northern and Southern European countries. Moreover, it can be seen the

tendency in Spain apart as well. Notice that Spain has been taken into account in the average of the Southern European countries too.

Regarding data shown in Figure 1, which presents the GDP per capita tendency for Spain, Northern and Southern European countries, during the analysed period the GDP per capita of the Northern European countries has been higher than the Southern European countries and Spain. In the Southern European countries, the GDP per capita has been steady during the period, starting from a higher point than Spain but being lower during the next years. Nonetheless, the level of unemployment increased a little bit as well, so It should be explained which can be the reasons of these tendencies. Normally an increase in the GDP has a direct relation with the level of employment. For example, if the GDP of a country increases means that there is a higher production of goods and services, so it is needed more labour. But, sometimes this relation does not find a way. Higher production levels can be achieved without a higher level of labour. The clearest one is through technology, because it can be substitutive to labour, reaching a higher level of productivity. Nevertheless, sometimes with just a better manage of the production capacities of a business, productivity could increase. According to Spanish GDP per capita, the graphic shows that is higher than the Southern European countries group. According to Sanchez and Myro (2012), Spain exports are highly concentrated in specific countries, which has been demonstrated has a positive relation with the GDP per capita, so could be the one of the reasons why there is a difference in the level of it.

There is a considerable scope to explaining the differences in the GDP per capita. As it is thought, more productivity sometimes is due to better education, so it can be another reason of the difference. Moreover, there are some historical reasons that could have an effect on this difference. For instance, some Northern European countries such as Norway benefited from the European recovery program (ERP). This program was done in 1948 from the United States with the purpose of the reconstruction of the countries after the Second World War. In this case, Norway has benefited more than other countries because it was not occupied or destroyed during the war, improving the general tendency of the country. At the same time, Spain did not participate in that program for religious reasons (Lillo, 1996). Furthermore, it can be also influenced the level of unemployment in Spain, which is very high, as shown in Figure 2. As It can be seen, it is higher than the Northern and Southern European countries.

In order to continue analysing the differences between Northern and Southern European countries is important to examine the differences in terms of life satisfaction. To analyse people's life satisfaction one of the best tools is using the data collected by

the World Happiness Report (2016). To collect the data, the question reported to the participants was: "Please imagine a ladder, with steps numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time?"

Figure 3 shows data from 2007 to 2017 about average happiness in Europe. We show the values for Spain and for the two groups of Northern and Southern European countries, in order to see if Spain registers similar level of happiness than other Southern countries.

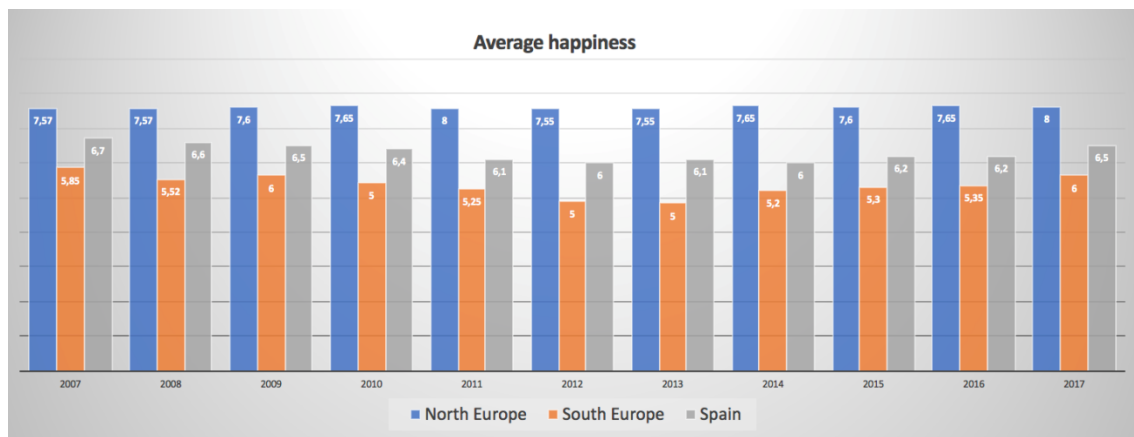


Figure 3: Average happiness in Europe. Data obtained from World Happiness report.

In the bar chart, it can be seen level of happiness in Spain from 2007 to 2017. In 2007 was 6.7 points, a higher level than the 5.85 points from the South European countries, but lower than the 7.57 points from the Northern European countries. Nevertheless, Spain is the only one that decreases from 2007 to 2017. Even is just 0.2 points, the most logical interpretation for the decrease could be the increase in the unemployment rate between those years too, as it has been seen before in the Figure 2. As an average, the level of self-reported life satisfaction for the Northern European countries during the analysed period is around 7.6 points, higher in the whole analysed period than Spain or the Southern European countries. Nevertheless, it can be seen that Spain has higher levels of happiness than Southern European countries, even it is still lower than the ones in the Northern. Apart from the effect of the unemployment on the level of happiness, there are other differences such as the average income for each country, which could have an effect on happiness as well. According to Eurostat (2017), there are huge differences regarding to the average income between European countries. However, in spite of these differences, is arduous to compare two countries

because of the differences in their norms or subsidies system. Furthermore, countries culture could have an effect on the lifestyle of its citizens. In Spain, there has been an increase in the sports culture which prevents people from suffering obesity, so it means that eating habits are controlled. Furthermore, Spain has public education and health, which helps people not to worry about assuming huge healthcare operations. So, the reason why we observe an higher level of happiness in Spain with respect to other southern countries depends on different indicators such as the politic system, resources, corruption, education or health system.

## Are richer people really happier than others?

As said before, this work is going to focus on Spain, taking the data from European Social survey, which provide data from more than 30 countries. We decide to focus on Spain because we are interested in the analysis of the well-being of the country where we live.

We select, among others, the data collected in 2012 because of two reasons: the first one is because this is after the crisis, and the second one is that we are going to use specific variable collected only in this year. Moreover, Spain never appears in the happiest countries rankings, so it could be important to analyse the reasons. The aim of the European Social survey is to register the different behaviours, feelings and attitudes around Europe about different aspects. The way the data has been obtained is simple: participants answer every two years to a survey which contains questions such as: "How much time during the past week you were happy?" "Are you agreeing with your type of contract?" "How often do you go with friends?" "How much time do you spend every day with your family?" "Does your income cover your basic necessities? And it allows you to do things apart from basic necessities?" "Are you married, singled, separated or widow?". The survey was asked to an average of 2.000 people in Spain. The standard procedure used to do the survey is through a cross-section method, which means that a particular variable is being analysed in a particular moment, with the purpose of knowing specific features in a specific moment no matter where and when they took those features. The aim of the data is knowing which is the feeling of the people about the economic, social and political situation through different questions. There are different views about which are the indicators that have higher effect on happiness. For instance, according to Sociologic investigation centre (SIC), health, sharing at least two hours with your family every day, level of income or enjoy inner peace are essential for reaching happiness. At the same time, states that losing

your values, lonesomeness, or scarcity are probably the unhappiness chiefs. Nevertheless, this work considers more than those variables. Following the research of Haller and Hadler (2006), we select the following few variables to carry out our analysis. The variables chosen for this work are:

**Level of income:** This is our variable of interest. As it has been seen, is one of the variables with more impact in the level of happiness. There are many studies demonstrating the relation between income and happiness, one of the most recent one is from Clingingsmith (2015), an economist who proved that the level of happiness after receiving an increase in the income is directly proportioned with the income earned before. So, lower income earned before, higher happiness after an increase in the income. It is a fact that higher income you have, more things you can do with it, such as travelling more, having less worries about for example paying taxes, mortgage or being able to pay a good education for your children. In this way, income has a direct impact in the way one person lives, in the sense that this person is able to go out with friends more frequently or is not stressed about covering basic necessities, which might have an effect on his daily life mood. Furthermore, according to Bryson & Mackerron (2017) wages and salaries are an important source of motivation, followed by the stability on the employment, the recognition of your labour or promotion possibilities. What is more, after different surveys, they conclude that labour motivation boost work satisfaction and productivity, or in the same line, more motivation means more quality of work and it is important for achieving organization goals. What does it mean? if you have higher income, you will be motivated and more satisfied, which should lead into higher levels of happiness. Nevertheless, we will see after analysing the data that this positive effect does not follow always the same tendency. For this reason, the important aspect is to analyse if there is any evidence of the Easterlin paradox in Spain as well. Income is measured in the European social survey in deciles, so the lowest level is equal to 1, corresponding to 0-750€ monthly and the highest is equal to 10, corresponding to 3.550€ monthly or more.

**Health status:** Health have a strong impact on happiness. In fact, avoiding sickness is one of the main ways to feel free, and as it is known freedom is almost necessary to reach happiness. In the European Social Survey, you can find five different types of answer to the question: "In general, would you say your health is...?", going from the level 1=very good, to level 5=very bad. Said before, freedom is strictly restricted by sickness, and when more serious, probably you will be less free, as you are able to do

less things by your own. Moreover, sickness causes worries and concerns on people you care about. For instance, the whole family would be less happy if there is a family member with a serious sickness.

Many years ago, a Greek doctor called Hippocrates, stated that sickness will be as a consequence of unbalance on inner mood. So, when less happy or less feel of freedom, more possibilities of being sick. This has been studied by scientific field called Psychoneuroimmunology. Even this study is focus on the opposite effect, that is to say, which is the effect of being sick on happiness, is important to highlight that there are many professionals studying the relation between both. The advance on this matter has been notorious compared to years ago. According to Sociologic investigation centre (SIC), health status is the second happiness indicator. Data from SIC states that in less than one century life expectancy has been doubled and more than 70 percent of Spanish people affirms that has optimal health. So, people from countries with a good healthcare quality should have a better feeling in terms of life expectancy, which will be directly related to happiness.

**Social meeting:** As it is said before, complete happiness can only be achieved when you are in connection with other people, being able to spend your spare time with friends. In the European Social Survey, it can be found seven different types of answer to the question: “How often do you meet socially with friends, relatives or work colleagues?” going from 1 which means that never has social meeting to 7, meaning that has social relations every day. It is known that having friends, people whom you can spend your spare time, reliable friends whom tell your personal problems, or even people practising the same sport, is important to feel completely happy. For that matter, the most profound experiences of happiness are related to having a complete social interaction. There are some studies related to social meeting and happiness that deserve being highlighted. For instance, complete happiness can only be achieved when you are in connection with other people such as partners, spouses, friends or even workmates (Barheier and Bellebaum, 1997). So, being generous and having reliable friends around you would help to reach happiness.

**Democracy:** Feeling that you are not living in a democratic country could block reaching happiness. In fact, it has a direct relation with freedom. Democracy is considered currently the best form of government. In the survey, there are different answers to the question: “How democratic do you think your country is overall?”. For instance, the answers go from 0 meaning “Not at all democratic” to 10, which means

“Completely democratic”. For those reasons, people who thought that is not living in a democratic country would find more difficult reaching happiness. Said before, freedom is practically a necessary condition to reach happiness. For this reason, only under democracy happiness is achievable. Even that assumptions are clear, there are studies such as the one done by Krishna and Radcliff (2009) which states that authoritarian regimes may be accepted by citizens through justice tampering.

**Religion:** Believers argument that religion can help them to face adverse situations. However, other people states that religious people boost the feeling of blame. Due to the important number of religious people in Spain, this variable has been chosen to make it clear. The European Social survey has been done the survey considering only two types of answers to the question: “Do you consider yourself of any religion?” 1 will mean “Yes” and 2 will mean “No”. Even it is not clear at first glance, religion is felt in a different way depending on the age, in the sense that there are more believers as the age increases. But setting apart the age, the aim is to know if there is a relation between religion and happiness. So, it will be focused in two groups, the ones who believe in any God and the ones who not. In regard to a study done by Mark Larrimore (2010) is clearly stated that there is a difference in the believers that go to church regularly and the ones who are believers as well but go rarely. Concluding than the ones who are more active and participate in more ecclesiastic activities are happier. Clearly, for a believer, religion can give solutions and answers to many of life problems. Also, it gives sense to death or birth. So, probably the reason why active believers are happier than the ones who not is because religious communities are more than just being a member of any association, where everyone helps the rest of the participants. In addition, there are many studies such as the one shown in a conference by the Royal Economic Society (2008) which compared the level of happiness in Believers and non-believers. This study revealed that religious people are able to react in a better way to adverse events such as the death or sickness, because they thing that everything has sense aside religion. In the same way, there are many other studies that have indicated religious practices can create a feeling of blame, this is the reason why is interesting to analyse religion in order to see the effect on happiness.

**Last week happiness:** is considered important to analyse the way you feel last week, taking into account the aspects that could modify your level of happiness. This can be considered as a control variable to check if people are “stably” happy. The range of



answers to the question: "Were you happy last week?" go from 1 meaning "None or almost none of the time" to 4 meaning "all or almost all of the time".

**Gender:** It is important to verify if the gender is a determinant of the level of happiness. Regarding to the European Social Survey answers, 1 will mean "Male" and 2 "Female". Related to gender, it is important to explore which can be the differences in a World with the same rights for both. Nonetheless, in accordance to Wood et al. (1989) time ago, in spite of the fact that rights of women were significantly lower, girls were happier than boys. Finally, Reynaldo Alarcon (2001) contrasted the influence of gender on happiness, comparing the mean on life satisfaction for both genders, concluding that gender does not determine happiness when both genders have the same social and economic status.

Furthermore, according to Nick Powdthavee (2010), normally women are more satisfied with their overall life, but have more happiness fluctuations in their daily life.

**Age:** In order to see if there is a difference in the level of happiness depending on the age. There are not categories for this variable, the answers would be the age of the respondents. In general, we usually think that young people are happier than the older ones, nevertheless, there are many studies that reach opposite results. For this reason, is interesting to analyse if age has any impact on happiness or not. For instance, according to Marczak and Kolarz (1998) who examined the answers of more than 2.500 men and women between 25 and 75 years, older people was happier. They explained that it happened because they had less negative emotions than young people, probably because older people know how to regulate their emotions better, and know how to maximize positive things and minimize the negative ones. The younger participants revealed more nervousness, insecurity and hopelessness. Notwithstanding, there are other studies such as the one done by Haller and Hadler (2004) which remarks that younger people, and especially the ones who have less than 30 years, are more satisfied with their lives and happier than the older. They figured out that it might be due to the fact that young people are more predisposed to new experiences, adventures or opportunities that could be more difficult or hard to carry on when you are an adult and have obligations to do. So, as it is not already clear is important to analyse that variable in our study.

**Marital status:** In the European Social Survey, there is a single question asking: "Independently if you are living with someone or no, which of the next situations better reflects your marital status?" with different options. For the sake of completeness, we

prefer to split this variable in 4 different dummies: "Married" where 1=yes and 0=no, "Single" where 1=yes and 0=no, "Separated" where 1=yes and 0=no or "Widow" with the same type of answers.

It is known that being part of a family is an important source of happiness for many people. Sometimes, after being stressed for work reasons or anything else, enjoying for a while with your family is ideal to relax and have a better end of the day. Nonetheless, in regard to Spanish Census, the number of single-parent families is increasing year by year. For instance, in 1991 there were around 1.6 Million of single-parent families and just 10 years later, there were the double (INE Census, 2011). In spite of the increase of single-parent families, there are more happiness indicators such as the five times increase on the households formed by a family. Veenhoven (1983) showed that even the fact of being single is a modern prototype, single persons are less happy than the married. Moreover, he stated that the relation between happiness and married has become stronger, in the positive sense. Singles seems to be freer and as it is said before, feeling freedom is essential to be happy, but not having partner causes social and communal links deficits. Understandably, widow people are often less happy than others.

**Number of children at home:** The number of children at home or even just the presence of children in home could increase the level of responsibilities and anxiety. Nonetheless, many people feel happier with children at home. Demonstrating that there is not already a clear idea about it. In the European Social Survey, there will be two different types of answers to the question: "Do you live with children at home?" 1 "if children at home" and 2 "if not".

**Type of contract at work:** The main point of including this variable is to verify if having a stable contract increases the probability to be happy. Moreover, as it is known, most of the time of our life is spent at work. For this reason, work conditions would be an important part in the way we feel. In the European Social Survey is measured as 1 if the contract is unlimited, 2 if is limited or 3 if there is no contract. Evidently, there are some evidences about happiness which states that it depends at least slightly on income, and the income would be related to the type of contract of your work. Moreover, as most of the people spend an important part of his life working, one of the citizens goal is to be happy at work. Depending on the type of work, you can find many types of contracts, the most common are: open-ended contract, training and learning contract or work-experience contract, even there are many more. In addition, you can work at your own family business, or you can be self-employed as well. Francisco

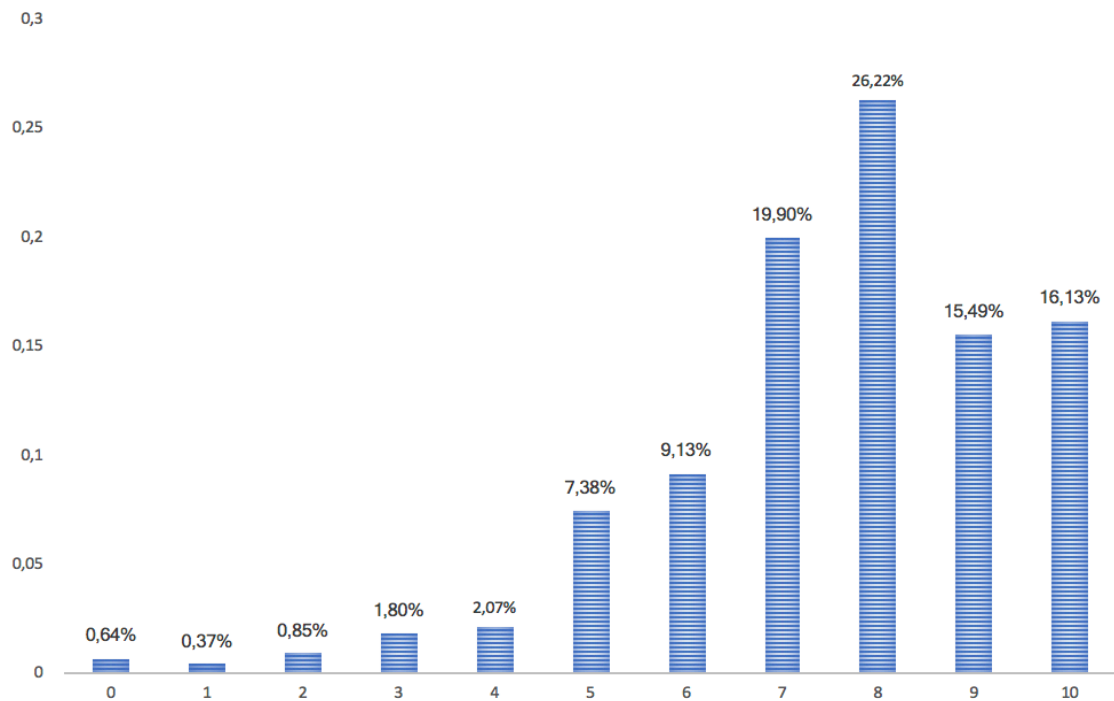
Mochon (2010) relates that people who has finished his working life are the most satisfied, even they receive the unemployment benefit and it is normally less than his previous income. This could be surprising for some people, but retired people often has more spare time to enjoy with family or relax. Sometimes, they have less material aspirations, so this could be one of the keys of his happiness. In general housewives are happier than people with work and as expected, unemployed people is less satisfied, specifically, only that people who is unemployed and is trying to find a job. The relation between unemployment and happiness might come from the fact of having a bad financial situation or from feeling socially useless, in other words, feeling that you do not have the necessary skills to help anyone.

As it can be seen variables have demographic and socio-economic nature. This work will take into account the information obtained from those variables. The answers of those variables are expressed in an ordinal scale. Logically, these are not all the variables that have an effect on happiness, however, the study should be limited to the information of the surveys carried out.

## Probit analysis

In order to know the impact of the described variables on the happiness of people living in Spain, our dependent variable is the declared happiness which is measure in the European Social Survey through the question "In general terms, to what extent do you consider yourself a happy or unhappy person?". Since the answer to this question range from 0=absolutely unhappy to 10=absolutely happy, and this is a discrete variable, we do not run an OLS estimation but we prefer to generate a dummy variable which is equal to 1 if the reported level of happiness is higher or equal than 5 and 0 if it is lower than 5. We choose 5 as a threshold because is the mean value. Before to start the econometric analysis, we show the distribution of the reported level of happiness in Spain in 2012.

## LEVEL OF HAPPINESS



*Figure 4: Reported level of happiness in 2012 in Spain. Data obtained from European Social Survey.*

Figure 4 shows the percentage of people for each level of happiness for the survey done in 2012, were around 1.085 people answered, should be taken into account that there were people who preferred not to answer. As it can be seen most of the people is considered to have a reported level of happiness of 5 or higher. In detail, there is a large majority between the levels 7 and 10.

	Number of observations: 1.085	
<i>Happiness</i>	Marginal Effects	Standard Errors
Level of Income	0.012***	0.02
Health status	(-)0.03**	0.08
Social meeting	0.01*	0.04
Democracy	0.01***	0.02
Religion	(-)0.01	0.12
Last week happiness	0.11***	0.08
Gender	0.01	0.12
Age	0.001	0.001
Marital status: Married	0.06	0.39
Marital status: Widow	(-)0.04	0.28
Marital status: Separated	(-)0.05**	0.18
Marital status: single	(-)0.04	0.18
Nº of children at home	(-)0.02	0.14
Type of contract at work	0.001	0.6

Table 1: Results of Probit regression. Dependent variable: probability to be happy. Significance \*\*\* $p \leq 0,01$ ; \*\* $p \leq 0,05$ ; \* $p \leq 0,1$ .

On the one hand, the Table 1 show the results of the Probit regression over the eleven independent variables commented before. The marginal effects show the effect on the dependent variable after a change in the independent variable. All the independent variables with a negative sign in the marginal effect column means there is a negative effect on the dependent variable. The variables should be explained individually, taking into account what we have obtained from the tables: The Level of income is our variable of interest. Since it has a positive and significant coefficient, we deduce that an increase in the level of income increases the probability to be happy, holding all the other variables constant. According to the marginal effect, it can be said that if the level of income increases one unit, the probability of being happy increases 1.2%. It confirms what all the literature says, normally, higher income would be related to higher level of happiness. Regarding Health status there is an exception. As it is said before,

health status answers are distributed in the opposite way as the others. So, in this case, the negative sign has the same interpretation as it would be positive. For this reason, if the level of health increases one unit, the probability of being happy is 3% higher. Social meeting has a positive and significant coefficient as well, so the probability to be happy increases as the level of social meeting increases. Furthermore, increasing social meetings in one unit would make an increase of 1% in the probability of being happy. In the same way, the coefficient for democracy is positive as well, so the probability of being happy increases as the level of democracy rise. It is thought that democracy is so important for the citizens, as it offers rights and fair laws for everyone, for these reasons a person who consider living in a democratic country is more likely to reach happiness. In detail, according to its marginal effect, if democracy increases in one unit, the probability of being happy rise 1%. The results show that Religion has not significant effect on the probability to be happy. Furthermore, we can affirm that a person who was happy last week, is more likely to be happy this week as well, because the obtained coefficient is positive. Moreover, the results show that Gender has not significant effect on the probability to be happy. In the same way, the results show that age has not significant effect on the probability to be happy. Regarding the marital status, we find out that be separated or divorced decreases the probability to be happy. For the variables single, number of children at home and the type of contract at work the results show that are not significant in order to obtain the level of happiness.

	Number of observations: 1.085	
<i>Happiness 10</i>	Marginal Effects	Standard Errors
Level of Income	0.001	0.01
Health status	(-)0.03*	0.05
Social meeting	0.001	0.03
Democracy	0.001	0.02
Religion	(-)0.02	0.09
Last week happiness	0.15***	0.05
Gender	0.001	0.087
Age	0.001	0.001
Marital status: Married	0.02	0.3
Marital status: Widow	(-)0.06	0.24
Marital status: Separated	0.11*	0.18
Marital status: single	(-)0.09**	0.13
Nº of children at home	0.001	0.09
Type of contract at work	0.001	0.07

Table 2: Results of Probit regression. Dependent variable: probability to be extremely happy. Significance \*\*\* $p \leq 0,01$ ; \*\* $p \leq 0,05$ ; \* $p \leq 0,1$ .

Once observed the effect of the selected variables on the probability to be happy, we focalize on the “very happy people”. To reach this goal, we create another dummy which is equal to 1 if the level of reported happiness is higher or equal than 9. It has been decided to include the value 9 because there were not too many people with a level of happiness of 10 and because we assume that a person declaring level of happiness equal to 9 may be considered as extremely happy.

At a first glance, the main difference with respect to results shown in Table 1 is the effect of income: in this case, in fact, the marginal effect is very small and not significant. The reason behind this result may be that there is a level of income that increasing the amount is not enough to make you happier. As an example, is not the same increasing the income for a family who has not covered their basic necessities that increasing it for a person with many properties and heritage. The other variables

have similar results compared to the Table 1, nevertheless there are some differences that should be commented. The health status is still significant, so a person with a good health status will be more likely to reach the highest level of happiness. Nonetheless, social meeting does not influence in the probability of extremely happy. In the same way, For the happiest people, does not influence living in democracy or not. It happens the same with religion. The variable called “happy last week” has a significant effect for the happiest people. This could happen because, if you were happy last week considering all the things together, you are more likely of being happy at this moment as well, unless something adverse happen. The gender and the age are not significant in determining the probability of being extremely happy. Moreover, if a person is single or is separated from their partner, the probability of being extremely happy increase.

The main interpretation of our results is that people with the highest level of happiness does not matter about income in the same way as other people do. For this reason, one of the main conclusions of this work is that higher level of happiness will be only possible to reach if you try not to worry about material things or income, and starting to value other things in life such as having social relations or keeping health. For those reasons, it can be assumed that the Easterlin paradox is fulfilled in Spain as well, as the happiest people are not the ones with highest level of income.

## Conclusion

It has been seen the level of unemployment, GDP per capita and happiness in Spain. After seeing the different tendencies of these indicators, various explanations about the possible effects has been given basing on the literature. After that, there has been done a Probit regression taking into account the variables that is thought to have stronger effect on the level of happiness, in order to see if the ideas correct or not. In detail, there has been done two regressions. The first one to see the differences of the standard level of happiness for the people. Furthermore, another one with the same purpose but focusing only on people with the highest declared level of happiness. By now, it has become clear that also in Spain, more income is often related with higher level of happiness. Nevertheless, there have emerged new important points about the relation between happiness and income. On the one hand, after analysing data obtained from the regression, more money is not enough for reaching the highest levels of happiness, where other indicators such as having proper health or having a permanent level of happiness are relevant. On the other hand, governments should be now aware about the effect of GDP on citizens welfare, because is not the expected



one, as higher GDP does not mean higher happiness. The reason of that could be better understandable with this citation from John Stuart Mill “*Men do not desire to be rich, but richer than other men*”, that is to say, higher income for everyone does not mean higher level of happiness for all. So, to sum up, even if income is important, it has been demonstrated that sometimes, giving the necessary value to things such as just being healthy or taking care about friends or family, are more important to reach the level of happiness that everyone is looking for.

## References

- Alarcón, R. (2001). Relaciones entre felicidad, género, edad y estado conyugal. *Revista de Psicología*, 19(1), 27-46. [Accessed 2 February 2018].
- Booth, A. (2008) “Job satisfaction , family life and happiness” <http://www.res.org.uk/details/mediabrief/4377081/Job-Satisfaction-Family-Life-And-Happiness-Different-Experiences-For-Men-And-Wom.html> [Accessed 4 February 2018].
- Bryson, A., & Mackerron, G. (2017). Are you happy while you work? *The Economic Journal*, 127(599), 106–125. [Accessed 2 March 2018].
- Linguaserve IS, S., 2018. ·CIS·Centro De Investigaciones Sociológicas·Página De Inicio. [online] Cis.es. Available at: <<http://www.cis.es/cis/opencms/EN/index.html>> [Accessed 2 June 2018].

- Clark, A. (2008) "Los religiosos son más felices" BBC Mundo. News.bbc.co.uk. 2018. BBC Mundo | Ciencia Y Tecnología | Los Religiosos "Son Más Felices". [online] Available at: <[http://news.bbc.co.uk/hi/spanish/science/newsid\\_7303000/7303795.stm](http://news.bbc.co.uk/hi/spanish/science/newsid_7303000/7303795.stm)> [Accessed 2 June 2018].
- Clark, A. E., Frijters, P., & Shields, M. A. (2006). Income and happiness: Evidence, explanations and economic implications. [Accessed 1 February 2018].
- Clark, A.E., Diener, E., Georgellis, Y. & Lucas, R. (2008). Lags and Leads in Life Satisfaction: A Test of the Baseline Hypothesis. *Economic Journal*, 118, F222–F243. [Accessed 2 June 2018].
- Clingingsmith, D., 2018. Negative Emotions, Mood Disorders, And Income. Case Western Reserve University.
- Diener, E., & Biswas-Diener, R. (2002). Will money increase subjective well-being? *Social indicators research*, 57(2), 119-169. [Accessed 2 June 2018].
- Doughty, S. (2018) "The happiness gender gap: Women are more satisfied with their lives but men are less likely to feel anxious" <http://www.dailymail.co.uk/news/article-5438041/Women-happier-satisfied-lives.html> [Accessed 2 June 2018].
- Easterlin, R. A. (1974). Does economic growth improve the human lot? Some empirical evidence. In *Nations and households in economic growth* (pp. 89-125). [Accessed 4 April 2018].
- Ec.europa.eu. (2018). Database - Eurostat. [online] Available at: <http://ec.europa.eu/eurostat/data/database> [Accessed 2 Jun. 2018].

- Emmanuel, J. (2017) "Happiness at work" S3.amazonaws.com. 2018. [online] Available at: <[https://s3.amazonaws.com/happiness-report/2017/HR17-Ch6\\_wAppendix.pdf](https://s3.amazonaws.com/happiness-report/2017/HR17-Ch6_wAppendix.pdf)> [Accessed 2 June 2018].
- Europeansocialsurvey.org. (2018). European Social Survey | European Social Survey (ESS). [online] Available at: <http://www.europeansocialsurvey.org/> [Accessed 2 Jun. 2018].
- Eurostat. n.d. Unemployment rate in member states of the European Union in January 2018 (seasonally adjusted). Statista. Accessed May 10, 2018. Available from: <https://www.statista.com/statistics/268830/unemployment-rate-in-eu-countries/>.
- Gerónimo, O., Valentín, A., Arancibia Romero, C., & Campero Encinas, S. (2014). Economía de la Felicidad: evidencia empírica para Latinoamérica. *Revista Perspectivas*, (34), 159-180. [Accessed 4 April 2018].
- Haller, M., & Hadler, M. (2004). Happiness as an expression of freedom and self-determination. In *Challenges for quality of life in the contemporary world* (pp. 207-231). Springer, Dordrecht. [Accessed 4 April 2018].
- Ine.es. (2018). INEbase / Demography and population / Population figures and Demographic Censuses / Population and Housing Census 2011. [online] Available at: [http://www.ine.es/en/censos2011\\_datos/cen11\\_datos\\_inicio\\_en.htm](http://www.ine.es/en/censos2011_datos/cen11_datos_inicio_en.htm) [Accessed 2 Jun. 2018].
- Larrimore, M. (2010). Religion and the Promise of Happiness. *social research*, 569-594. [Accessed 4 April 2018].

- Lillo, P. M. (1996). La diplomacia española y el Plan Marshall en el marco de las relaciones hispano-francesas (Junio 1947-abril 1948)'. Cuadernos de historia contemporánea, (18), 155-174. [Accessed 4 April 2018].
- Mochón, F. (2010). LA FELICIDAD DE LOS ESPAÑOLES: FACTORES EXPLICATIVOS. Economía aplicada, [online] pp.6-20. Available at: [http://www.revecap.com/revista/numeros/54/pdf/ahn\\_mochon.pdf](http://www.revecap.com/revista/numeros/54/pdf/ahn_mochon.pdf) [Accessed 2 May 2018].
- Mroczek, D. K., & Kolarz, C. M. (1998). The effect of age on positive and negative affect: a developmental perspective on happiness. Journal of personality and social psychology, 75(5), 1333. [Accessed 4 April 2018]
- OECD (2018), Gross domestic product (GDP) (indicator). Doi: 10.1787/dc2f7aec-en (Accessed on 01 June 2018)
- Ortiz, E. & Roser, M. (2017) "Happiness and life satisfaction" <https://ourworldindata.org/happiness-and-life-satisfaction#correlates-determinants-and-consequences> [Accessed 4 April 2018].
- Powdthavee, N. (2010). The happiness equation: The surprising economics of our most valuable asset. Icon Books Ltd. [Accessed 4 April 2018].
- Report, W., 2018. Frequently Asked Questions. [online] World Happiness Report. Available at: <http://worldhappiness.report/faq/> [Accessed 2 June 2018].
- Rojas, M. (2007). Heterogeneity in the relationship between income and happiness: A conceptual-referent-theory explanation. Journal of Economic Psychology, 28(1), 1-14.

- S.Mazo, P. and S.L., U., 2018. España Se Afianza Como La 12º Economía Del Mundo. [online] Expansión.com. Available at: <<http://www.expansion.com/economia/2016/04/15/570f8cb4e2704eec2d8b45db.html>> [Accessed 2 June 2018].
- Sánchez, R. M. (2012). La competitividad exterior de la economía española y sus determinantes. *Economistas*, 30(130), 39-47. [Accessed 4 April 2018].
- Tapfield, J. (2018) "Women are HAPPIER and more satisfied with their lives than men but also report higher levels of anxiety" <http://www.dailymail.co.uk/news/article-5436721/Women-HAPPIER-men-anxious.html> [Accessed 4 April 2018].
- Veenhoven, R. (1983). The growing impact of marriage. *Social indicators research*, 12(1), 49-63. [Accessed 2 June 2018].
- Waldinger, R. J., & Schulz, M. S. (2010). What's love got to do with it? Social functioning, perceived health, and daily happiness in married octogenarians. *Psychology and Aging*, 25(2), 422-431. [Accessed 4 April 2018].
- Wood, W., Rhodes, N., & Whelan, M. (1989). Sex differences in positive well-being: A consideration of emotional style and marital status. *Psychological Bulletin*, 106(2), 249 [Accessed 4 April 2018].
- Worlddatabaseofhappiness.eur.nl. 2018. World Database Of Happiness. [online] Available at: <<https://worlddatabaseofhappiness.eur.nl/>> [Accessed 2 June 2018].

- Worldometers. 2018. Worldometers - Real Time World Statistics. [online]  
Available at: <<http://www.worldometers.info/es/>> [Accessed 2 June 2018].